a) amplifying chromosomal DNA with oligonucleotide primer pairs specifically hybridizing to said locus of a region of said chromosomal DNA, wherein said region of the DNA comprises a repeated dinucleotide motif comprising at least one of the following selected from the group consisting of $(GA:CT)_n$, $(GT:CA)_n$, $(AT:TA)_n$, where $n \geq 10$, to obtain an amplification product,

b) size fractionating the amplification product to provide a measure of the said motif of the chromosomal DNA between said primer pairs,

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wherein the size of the amplification product is polymorphic for said locus and provides a genotype for said plants.

15. (amended) The method of claim 14, wherein the primer pairs are selected from at least one of the pairs SEQ ID NO. x and SEQ ID NO. x+1, where x = 27, 93, 129, 203, 277, 315, 345, 361, 383.

16. (amended) The method of claim 14, wherein x =1.